



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/531,249

04/14/2005

Laurent Regnier

S1022.81220US00

1226

46329

7590

07/07/2009

STMicroelectronics Inc.

c/o WOLF, GREENFIELD & SACKS, P.C.

600 Atlantic Avenue

BOSTON, MA 02210-2206

EXAMINER

SMITH, JOSHUA Y

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

07/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,249	Applicant(s) REGNIER, LAURENT	
	Examiner JOSHUA SMITH	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed 03/13/2009 has been entered.

- **Claims 1-4 and 6-20 are pending.**
- **Claim 5 is previously cancelled.**
- **Claims 1-4 and 6-20 stand rejected.**

Drawings

Figures 1, 2, 3A, and 3B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "means for dividing each data packet of a digital message into successive segments of same predetermined size" and the "means for sending at the same time as each segment of the successive segments, an identification signal characterizing the type difference between the considered segment and the previous segment" and the "means for

reconstituting the packets of the digital message by arranging end to end the successive segments containing data of a same packet” of Claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

2. The application appears to be claiming in Claim 4 the prior art integrated circuit 10 shown in Figure 1 as the means for the steps of the device in Claim 4.

3. In addition, the application appears to be claiming in Claim 4 a prior art n-bit MDO bus (see page 2, lines 30-32, and page 3, lines 6-7) and additional test terminals with codes MSEO (see page 3, lines 7-14) of the prior art as the “means for sending at the same time as each segment of the successive segments, an identification signal characterizing the type difference between the considered segment and the previous segment”, and where these features are not clearly shown in Figure 1 or in an appropriate figure with a device.

4. In addition, the application appears to be claiming in Claim 4 a prior art analysis tool 24 of the integrated circuit 10 device of Figure 1 as the “means for reconstituting the packet of the digital message”, and where the analysis tool 24 is located outside the integrated circuit 10 (located outside the device) in Figure 1.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-3 and 8** are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See *In re Bilski*, 88 USPQ2d 1385, 1391 (Fed. Cir. 2008). The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The "method for transmitting" is broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 and 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 states “segment containing a message start” and “a segment of the successive segments representing the start and the end of the digital message is classified as a message end”. This is indefinite since it is unclear under what condition a segment is classified as a “segment containing a message start”, when a segment contain a start and an end of a message is classified as a “message end”.

Claims 2, 3 and 6-8 are rejected through respective dependence from Claims 1 and 4.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nexus 5001 Forum ("Standard for a Global Embedded Processor Debug Interface", IEEE-ISTO, pages 5, 28-29 and 92-97 of 150) in view of Ho et al. (Pub. No.: US 2003/0169769 A1) and Petersen et al. (Patent Number: 5,822,321), hereafter respectively referred to as the Nexus reference, Ho, and Petersen.

In regard to Claim 9, the Nexus reference teaches in Page 1 of 150, an embedded processor debug interface standard for embedded control applications and where applications include automotive powertrain, data communications, computer peripherals, and other control applications, and, in Page 5 of 150, high-performance on-chip instruction cache and flash, and, in Page 29-29 of 150, and in Figure 5-3, Page 28 of 150, an Emulator connected to a Target and a Host (transmitting between a monitoring circuit integrated to a microprocessor and an analysis tool).

The Nexus reference also teaches in Page 97 of 150, 1st and 5th bullets, a data message is divided into packets, and, in Page 95 of 150, and in Page 96 of 150, Table 8-2, a transfer of an Indirect Branch message involving a transfer protocol, and where packets of the message are transmitted in sections of four bits or less with each count

of a clock, and implicitly teaching that the message is to be reconstructed eventually at a receiving end (dividing each data packet into successive segments of same predetermined size, and reconstituting packets of each message by arranging end to end segments containing data of a same packet).

The Nexus reference also teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as “Idle”, “Start Message”, “Normal Transfer”, “End Packet”, and “End Packet/Message” (each segment being classified according to one or the other of five types, segment containing a message start, intermediary data, a packet end, a message end, or empty segment, and being classified as a segment containing a packet end, sending in sequence a first segment and a second segment).

The Nexus reference fails to teach sending in sequence a first segment and a second segment and where a first segment is classified as containing a message end and a second segment is classified as containing a packet end.

Ho teaches in paragraph [0044], and in FIG. 6, the MAC sublayer 106 can accommodate uniquely identifiable multiple traffic streams between pairs of stations, and a frame subbody count field 126 indicates a number of frame subbodies 132 contained in the frame 120, where each subbody 132 (segment) has an associated sequence control field 128 and a subbody length field 130, and sequence control fields 128 contain sequence control values for each of the frame subbodies 132 (sending in sequence a first segment and a second segment), and sequence control values include the sequence number of the MSDU in a corresponding frame subbody field 132, where,

for example, sequence control field 1 contains sequence control information associated with frame subbody 1, and in accordance with conventional 802.11 protocol, each MSDU is assigned a unique sequence number to enable a receiving station to process the MSDUs in the order in which they were transmitted, and a sequence control field 128 may also include a fragment (packet) number, and where all fragments (packets) comprising an MSDU (message) are assigned the same sequence number but incremental fragment (packet) numbers, thus, if a corresponding subbody field 132 contains an entire MSDU (message) the fragment number preferably is set to 0 (a first segment is classified as containing a message end), and if the corresponding frame subbody field 132 contains a fragment (packet) of an MSDU (message), rather than a complete MSDU (message), the fragment (packet) number in the sequence control field 128 includes the correct fragment (packet) number (a second segment is classified as containing a packet end) (sending in sequence a first segment and a second segment and where a first segment is classified as containing a message end and a second segment is classified as containing a packet end).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ho with the teachings of the Nexus reference since Ho provides a system of allowing multiple data units to be transmitted in a frame and to provide accurate information concerning the aspects of those data units being contained, and can be implemented in the system of the Nexus reference to ensure that receivers obtain accurate data for processing packets and reconstructing messages.

The Nexus reference fails to teach a first segment is classified as a message end and a second segment is classified as a packet end.

Petersen teaches in column 4, lines 37-41, and in FIG. 4b, if a data packet (message) is so short that it can fit into a single minicell (packet), segmentation is not necessary, and a sending entity will send the data packet (message) to the receiving entity in a single minicell (packet) marked "last segment" (message end), and, as shown in Petersen in FIG. 4b, an ATM cell (segment) can contain data of such a marked minicell (packet) where the minicell (packet) contains a whole user packet (message) (a first segment is classified as a message end).

Petersen teaches in column 3, lines 54-56, and in column 4, lines 7-33, and in FIGS. 4b and 5, a length of each minicell is limited to a length that is less than an ATM cell payload (i.e., 48 octets), and where a user packet 501 (FIG. 5) may have a length of 178 octets and where a fixed segment size is set to 16 octets, this results in 11 minicells with payloads that are 16 octets long (e.g., minicells 502 and 503, in FIG. 5) and one minicell with a payload that is two octets long length (e.g., minicell 504, in FIG. 5) that will carry the segmented user packet 501 (FIG. 5), and this implicitly teaches that an ATM cell (segment) can contain minicells (packets) where a first minicell (packet) is marked "first segment" and the remainder of the minicells (packets) are marked "middle segment" and none of the minicells (packet) are marked "last segment", and this also implicitly teaches that an ATM cell (segment) can contain minicells (packets) where each minicell (packet) is marked "middle segment" and none of the minicells (packet) are marked "last segment" (a second segment is classified as a packet end).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Petersen with the teachings of the Nexus reference since Petersen teaches a method where packets are segmented into minicells, which are transmitted within ATM cells, and where the method ensures that the maximum ATM cell payload is completely utilized by allowing data from more than one minicell to exist within the payload of an ATM cell, providing the most efficient usage of bandwidth, and can be implemented in the system of the Nexus reference to ensure that transfers per clocking period are carrying the maximum amount of data by allowing data from more than one packet or message to exist in a single transfer when a transfer is not filled when transferring data of only a single packet or message.

In regard to Claim 11, as discussed in the rejection of Claim 9, the Nexus reference teaches classifying a segment as an empty segment and classifying a segment as a packet end. The Nexus reference also teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, receiving segments during idle periods where no message is sent (see item Idle, Figure 8-2) before activity involving a message (first segment is classified as an empty segment and a second segment is classified).

The Nexus reference fails to teach a second segment contains a packet end.

Petersen teaches in column 4, lines 42-47, an idle state 601 (FIG. 6), and then shifting to a reassembly state 602 (FIG. 6) when first data arrives (item 604, FIG. 6), and, in column 3, lines 45-56, an ATM cell 410 (segment) may contain multiple minicells

Art Unit: 2419

411, 412, 413 (packets) from a user packet 410 (message), and where an end of a minicell 413 is contained in an ATM cell (a second segment contains a packet end).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Petersen with the teachings of the Nexus reference since Petersen teaches a method where packets are segmented into minicells, which are transmitted within ATM cells, and where the method ensures that the maximum ATM cell payload is completely utilized by allowing data from more than one minicell to exist within the payload of an ATM cell, providing the most efficient usage of bandwidth, and can be implemented in the system of the Nexus reference to ensure that transfers per clocking period are carrying the maximum amount of data by allowing data from more than one packet or message to exist in a single transfer when a transfer is not filled when transferring data of only a single packet or message.

In regard to Claim 12, as discussed in the rejection of Claim 9, the Nexus reference teaches classifying a segment as a message end and classifying a segment as a packet end.

The Nexus reference fails to teach a first segment classified as a message end and a second segment contains a packet end.

Petersen teaches in column 3, lines 45-56, an ATM cell 410 (segment) may contain multiple minicells 411, 412, 413 (packets) from a user packet 410 (message), and where an ATM cell contains a minicell 411 with a user packet end and is followed

by an ATM cell with a minicell end (a first segment contains a message end and a second segment contains a packet end).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Petersen with the teachings of the Nexus reference since Petersen teaches a method where packets are segmented into minicells, which are transmitted within ATM cells, and where the method ensures that the maximum ATM cell payload is completely utilized by allowing data from more than one minicell to exist within the payload of an ATM cell, providing the most efficient usage of bandwidth, and can be implemented in the system of the Nexus reference to ensure that transfers per clocking period are carrying the maximum amount of data by allowing data from more than one packet or message to exist in a single transfer when a transfer is not filled when transferring data of only a single packet or message.

In regard to Claim 13, as discussed in the rejection of Claim 9, the Nexus reference teaches classifying a segment as an empty segment and classifying a segment as a packet end. The Nexus reference also teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, receiving segments during idle periods where no message is sent (see item Idle, Figure 8-2) before activity involving a message (first segment is classified as an empty segment and a second segment is classified).

The Nexus reference fails to teach a second segment is classified as a message end after an idle segment.

Petersen teaches in column 4, lines 42-47, an idle state 601 (FIG. 6), and then shifting to a reassembly state 602 (FIG. 6) when first data arrives (item 604, FIG. 6), and, in column 4, lines 37-41, and in FIG. 4b, Sheet 2 of 10, if a data packet is so short that it can fit into a single minicell, segmentation is not necessary, and a sending entity will send the data packet to the receiving entity in a single minicell marked "last segment" (a second segment is classified as a message end after an idle segment).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Petersen with the teachings of the Nexus reference since Petersen teaches a method where packets are segmented into minicells, which are transmitted within ATM cells, and where the method ensures that the maximum ATM cell payload is completely utilized by allowing data from more than one minicell to exist within the payload of an ATM cell, providing the most efficient usage of bandwidth, and can be implemented in the system of the Nexus reference to ensure that transfers per clocking period are carrying the maximum amount of data by allowing data from more than one packet or message to exist in a single transfer when a transfer is not filled when transferring data of only a single packet or message.

In regard to Claim 14, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a third segment of a plurality of segments, a third segment is classified as message start. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit

transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Start Message" labeled section is transmitted after an "End Message" labeled section (a third segment of a plurality of segments, a third segment is classified as message start).

In regard to Claim 15, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a fourth segment of a plurality of segments, a fourth segment is classified as intermediary data. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Normal Transfer" labeled section is transmitted after an "End Message" labeled section (a fourth segment of a plurality of segments, a fourth segment is classified as intermediary data).

In regard to Claim 16, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a third segment of a plurality of segments, a third segment is classified as message start. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Start Message"

labeled section is transmitted after an "End Message" labeled section (a third segment of a plurality of segments, a third segment is classified as message start).

In regard to Claim 17, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a fourth segment of a plurality of segments, a fourth segment is classified as intermediary data. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Normal Transfer" labeled section is transmitted after an "Start Message" labeled section (a fourth segment of a plurality of segments, a fourth segment is classified as intermediary data).

In regard to Claim 18, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a third segment of a plurality of segments, a third segment is classified as message start. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Start Message" labeled section is transmitted after an "End Packet" labeled section and an "End

Message" labeled section (a third segment of a plurality of segments, a third segment is classified as message start).

In regard to Claim 19, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a fourth segment of a plurality of segments, a fourth segment is classified as intermediary data. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Normal Transfer" labeled section is transmitted after an "Start Message" labeled section (a fourth segment of a plurality of segments, a fourth segment is classified as intermediary data).

In regard to Claim 20, as discussed in the rejection of Claim 9, the Nexus reference teaches sending from an integrated circuit to a monitoring tool a segment. The Nexus reference further teaches a third segment of a plurality of segments, a third segment is classified as message start. The Nexus reference teaches in Page 92 of 150, and in Page 96 of 150, Table 8-2, and in Page 94 of 150, Figure 8-2, four-bit transmission sections of the packets are labeled as "Idle", "Start Message", "Normal Transfer", "End Packet", and "End Packet/Message", and where a "Start Message" labeled section is transmitted after an "End Packet" labeled section and an "End

Message" labeled section (a third segment of a plurality of segments, a third segment is classified as message start).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Nexus reference in view of Ho, Petersen, and further in view of Paul Hulme Walker et al. (Pub. No.: US 2003/0091056 A1), hereafter referred to as Walker.

In regard to Claim 10, as discussed in the rejection of Claim 9, the Nexus reference teaches a segment.

The Nexus reference fails to teach a first segment is classified as a message end and a second segment is classified as a message end.

Walker teaches in paragraphs [0150]-[0152] and [0186]-[0187], and in FIG. 16, an ACTIVE state (item ACTIVE, FIG. 16) in which a condition to remain in an ACTIVE state is LAST_PACKET_LEVEL WAS_EOP_OR_EOM (FIG. 16), implicitly teaching a condition where it is possible to have two successive conditions where EOMs (end of message) are received successively and keep a device in an active state (a first segment is classified as a message end and a second segment is classified as a message end).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Walker with the teachings of the Nexus reference since Walker provides a system that includes circuitry for interfacing two devices involved in transforming signals and a state machine for ensuring an organized transfer of data based on identifying types of data units, including end of messages (EOM) and

end of packets (EOP), and can be incorporated into the teachings of the Nexus reference to provide the capabilities of transformers and to ensure proper identification and transmission of data in implementing such transformers.

Response to Arguments

I. Arguments for Claim Rejections under 35 USC § 112, second paragraph

Applicant's arguments filed 03/13/2009 have been fully considered but they are not persuasive. Applicant submits that classifying a segment representing both the start and the end of a message as a message end does not preclude classifying other segments as a message start, and, as an example, a segment representing the start of a message, but not the end of the message, may be classified as a message start. Examiner respectfully disagrees this is sufficient for the withdrawal of the rejections of Claims 1-4 and 6-8. The specification does not clearly disclose any condition for classifying a segment as a "segment containing a message start" as a feature of the invention, and it appears the application is relying on the prior art segment 311 as shown in Figure 1 to disclose such a condition, but a condition in which a "segment" is classified as a "segment containing a message start" when "a segment of the successive segments representing the start and the end of the digital message is classified as a message end" is not clearly disclosed as a feature of the invention.

II. Arguments for Claim Rejections under 35 USC § 103

Applicant's arguments filed 03/13/2009 have been fully considered but they are not persuasive. Applicant's submit that nowhere does Ho disclose or suggest that a fragment of an MSDU may span more than one frame subbody 132, and, therefore, there is no need in Ho to classify any frame subbody 132 as "a packet end", and that Ho fails to disclose or suggest a classification of "packet end" that is distinct from "message end". Examiner respectfully disagrees this is sufficient for the withdrawal of the rejections of Applicant's claims. Although Ho does not teach a "message end", a "packet end", and that a fragment (packet) of an MSDU (message) may span more than one frame subbody (segment), the Nexus reference does teach these limitations. Ho is applied to teach that a subbody (segment) containing a fragment (packet) of a MSDU (message), and a subbody (segment) containing a whole MSDU (message) are distinguished between in the system of Ho through the use of the fragment numbers that are sent with the subbodies, and where a subbody (segment) containing a first fragment (packet) of a MSDU (message) can be reasonably interpreted as a segment containing a packet, including the packet's end, and where a subbody (segment) containing a whole MSDU (message) can be reasonably interpreted as a segment containing a message, including the message's end.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2419

- Shah et al. (Patent Number: 5,933,435), teaches in column 3, lines 60-61, the use of a NUL frame to pad before the end of a packet (a first segment is classified as an empty segment and the second segment is classified as a packet end).
- Kawaguchi et al. (Patent Number: 5,729,530), teaches in column 5, lines 17-20, and in FIGS. 3 and 4, the selector 302 (FIG. 3) selects any one of the output cell from the cell analyzing circuit 301 (FIG. 3), the end cell 303 (FIG. 3) and the empty cell 304 (FIG. 3) to output the selected cell.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA SMITH whose telephone number is (571)270-1826. The examiner can normally be reached on Monday-Friday, 10:30am-7pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571)272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2419

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua Smith

/J.S./

Patent Examiner

02 July 2009

/Chirag G Shah/

Supervisory Patent Examiner, Art Unit 2419